

## **ABSTRACT OF THE DISCLOSURE**

A system and method are provided for use in maintaining secure communications between a home network and a mobile client when the client roams outside of the home network to a new location. One method of the present invention includes the steps of: establishing a new IP address for the new client location; sending a registration message identifying the new IP address location; authenticating the registration message; encapsulating and transmitting the registration message to the home server; registering the new IP address as a care-of-address for the client at the home server; confirming the registration of the new IP address with the client; establishing a security association between the home server and the relay server on behalf of the client; performing network address translation between the client's permanent IP address and the client's new IP address; tunneling packets addressed for the client between the home server and the relay server based on the established security association and the address translation for the client; and decapsulating the packets at the relay server and forwarding the packets to the client.

卷之三